

10/575,316

REMARKS

Claims 10-12, 14 and 15 are rejected, under 35 U.S.C. § 102, as being anticipated by EP 1059470 to Ford, ("EP '470). The Applicant acknowledges and respectfully traverses the raised anticipatory rejection in view of the following remarks.

As the Examiner is aware, in order to properly support an anticipation rejection under 35 U.S.C. 102 (b) the cited reference must disclose each and every feature of the presently claimed invention. The Applicant has amended claim 10 to include the subject matter of previous claim 13 relating specifically to the structure of the connection plate 32. Claim 10 now recites the feature of, "*a connection plate (32) having a first tube (36) located concentrically inside a second tube (34) to define an annular space (38) for receiving an actuating piston (40) arranged to move axially in the annular space (38) between the first and second tubes (34, 36);*"

The Applicant's claimed connection plate 32 and the integral structure of the concentric tubes 36, 36 formed in the connection plate is an important aspect of the Applicant's invention as discussed at paras. 011 and 013 of the Applicant's specification;

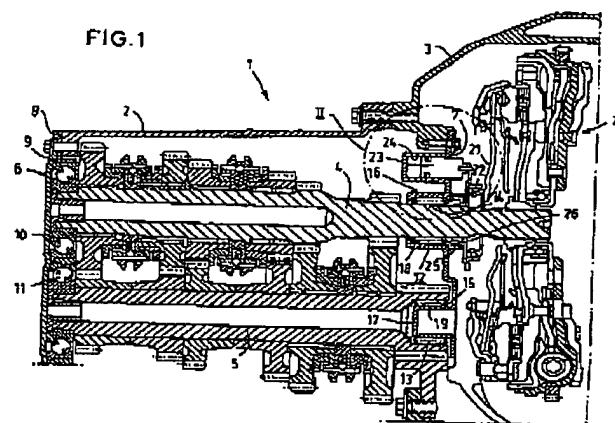
- [011] Particularly advantageously, the connection plate on the coupling device is made in the form of two tubes, one inside the other, and an actuating piston is arranged so that it can move axially in the annular space between the tubes.

- [013] A vehicle gearbox of such design with a connection plate enables the advantageous and assembly-friendly integration of many essential components and functional elements at a central location. Besides the clutch actuation and the actuation of the shift elements, at least parts of the transmission brakes and of the gearbox oil pump are provided in the connection plate. The connection plate can be made independently of the remainder of the gearbox housing and is, therefore, easily accessible at any points for processing tools. Screw-

10/575,316

bolts ensure simple fixing of the connection plate onto the housing during the assembly of the vehicle gearbox.

EP '470 arguably discloses a pressed sheet metal part 7 having a deep drawn cylinder 24 formed therein to accommodate an operating piston 23 radially offset from the gear shaft 4 for operating the release bearing of a friction disc clutch as shown in Fig. 1 of EP '470 and reproduced below.



What is clearly not disclosed, taught or suggested by EP '470 is the centrally aligned and concentric nature of the first tube 34 and the second tube 36 as shown, described and recited in claim 10 of the present invention. In other words, EP '470 has no second tube, i.e. inner wall 36 as claimed in the present invention. As at least these features of the presently claimed invention are not disclosed, taught or suggested in any manner by EP '470 the Applicant respectfully requests withdrawal of the anticipation rejection.

Next, claims 13 and 16-18 are rejected, under 35 U.S.C. § 103, as being unpatentable as anticipated by EP 1059470 to Ford ("EP '470). The Applicant

10/575,316

acknowledges and respectfully traverses the raised obviousness rejection in view of the above amendments and the following remarks.

Section 2143.03 of the MPEP requires the consideration of every claim feature in an obviousness determination. To render a claim unpatentable, however, the Office must do more than merely "consider" each and every feature for this claim. Instead, the asserted prior art must also teach or suggest each and every claim feature. See *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974) (to establish prima facie obviousness of a claimed invention, all the claim features must be taught or suggested by the prior art). Indeed, as the Board of Patent Appeal and Interferences has recently confirmed, a proper obviousness determination requires that an Examiner make "a searching comparison of the claimed invention – including all its limitations – with the teaching of the prior art." See *In re Wada and Murphy*, Appeal 2007-3733, citing *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995).

The present invention discloses and claims a novel connection plate 32 which integrally houses an *annular* piston in an *annular* space, i.e. a ring piston encircling the input shaft for actuating the clutch or coupling device 30. As an initial matter, the Applicant has made a thorough review of the EP '740 reference and can find no disclosure, teaching or even a suggestion that the piston 23 is in any manner considered or intended to be a ring or an annular piston. The very nature of the adjacent gear shafts 4 and 5 in Fig. 1 show that there is in fact no room in this transmission for such a centrally located annular space or piston because the gear shaft 5 buts directly up against the sheet metal part making it impossible to fit such an annular piston into the EP '470 arrangement.

There is also no disclosure, teaching or suggestion of the Applicant's specifically recited structure defining this annular space, namely the first tube 34 and the second tube 36 which are concentrically located relative to one another as integrally formed parts of the connection plate 32. In this respect the annular piston 40 of the present invention is housed

10/575,316

between an inner wall 36 and an outer wall 34 (Pg. 4, ll. 2-4) which of course is not disclosed or taught by a simple deep drawn cylinder 24 shown in EP '470 which, by its very nature, has only an outer wall for receiving the operating piston 23 therein..

Furthermore, the very nature of the structure and forming process of the sheet metal in EP '470 teaches away from the Applicant's claimed structure of the concentric first and second tubes. The Abstract of EP '470 states "A pressed sheet metal part can be formed as a fine drawn part provided with several deep-drawn tops (24) spaced circumferentially on the input shaft to serve as cylinders for operation pistons..." The manufacturing process of pressing the sheet metal by such a method as disclosed in EP '470 cannot render the same structure of the first and second concentric tubes claimed by the Applicant. Pressing the part as described in the reference can produce only the separate cylindrical formed depressions shown in EP '470 Fig. 1. This process in the applied reference can in no way be used to manufacture the presently claimed connection having the concentric single wall tubes 34, 36 which define the annular space.

The Official Action states that "[i]t would have been further obvious to one of ordinary skill in this art to make the piston and cylinder 23, 24 of Ford coaxial with the shaft 4 because it would have been obvious to try such a solution from a finite range of possible arrangement without any unexpect results." As best the Applicant understands this argument, it is alleged that one of skill in the art could easily use another arrangement of piston and cylinders to actuate the clutch. The Applicant notes that the Board of Patent Appeals has never found the rearrangement of parts to be clear indicia of obviousness. "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. *The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the*

10/575,316

reference device." *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bc. Pat. App. & Inter. 1989) (emphasis added).

But the present invention is more than a mere rearrangement of parts, it is an entirely different structure, manufactured in an entirely different way which attains the benefit of cost and efficiencies in product manufacturing as described at Applicant's para. 013 set forth above. EP '470 provides no motivation, or reason to achieve any other structure besides that which is shown. Whether or not recent case law has changed the indicia of what constitutes obviousness can be debated, however the fact remains that there must be some disclosure, teaching or suggestion, or at least some articulable rational which would lead one of skill in the art to modify the underlying reference to attain the features of the presently claimed invention. Whether or not there is a "finite range of possible arrangements" as asserted in the Official Action lends little, if any credence, clarity or support to a finding of obviousness which, as we know from case law, must still be based on some teaching or suggestion in the reference.

The Applicant has added new claims 19-21 where claim 19 specifically recites the structure of the present invention in a manner which is clearly fundamentally structurally and functionally different from the cited EP '470 reference. Claim 19 recites in part, "wherein the central passage is defined by an inner surface of a first cylindrical tube and the annular space for housing the annular actuating device is defined between an outer surface of the first cylindrical wall and a second cylindrical wall radially spaced and concentric about the first cylindrical wall and the input shaft." Here, the same cylinder or tube 36 which defines the inner wall of the annular space also defines the central passage for the input shaft, and again this is a feature which is not disclosed, taught or suggested in any manner by the EP'470 reference.

10/575,316

It is also an important aspect of the present invention that the actuators for the clutch and the actuators for directly shifting the gears of the transmission gear system are built, or lodged within the common element of the cover or connection plate 32 of the transmission. In this regard the Applicant has also added new claims 22-24 where claim 22 includes not only the novel subject matter of the concentric tubes 34, 36 for defining the annular space for the clutch actuator, but also the cover plate includes on the side facing the transmission gearing system that "a first lodgement is provided in the connection plate (32) for supporting actuating elements (56, 60, 64, 66) which directly shift gear wheels (14, 18) of the gear system into and out of a torque-transmitting condition; and wherein the actuating elements include parts of a shift system (56, 64) of a main transmission section of the vehicle transmission." The Official Action at pg. 3 asserts that the use of pneumatic actuation for the shift rod (ref. No. 29 in EP '470) would be obvious in view of EP '470 "...because it would also have been the use of a known technique to improve a similar device in the same way." Assuming for the moment that this argument means that actuating a shift rod with a pneumatic actuator is a known technique, what is still not disclosed, taught or suggested by the cited reference is that these actuators, pneumatic or otherwise, which directly influence the gears and shift rods of the transmission gearing system are lodged and supported in the cover plate 32 along with the actuator for the clutch. Arguably in Fig. 3 of EP '470 a shift rod is shown penetrating through the plate 7, however the actuating element itself which motivates the shift rod to move is not shown in any event, nor especially as lodged or supported by the plate 7.

What incorporating all these feature into the cover or connection plate 32 of the Applicant's invention does is therefore to define the cover plate 32 as a common element in which all these parts are arranged. Which makes assembly and repair easier and cheaper.

10/575,316

Again, this is a critical aspect of the present invention as discussed in the Applicant's specification at para. 13:

[013] A vehicle gearbox of such design with a connection plate enables the advantageous and assembly-friendly integration of many essential components and functional elements at a central location. *Besides the clutch actuation and the actuation of the shift elements, at least parts of the transmission brakes and of the gearbox oil pump are provided in the connection plate.* The connection plate can be made independently of the remainder of the gearbox housing and is, therefore, easily accessible at any points for processing tools.

(Emphasis added).

In summary, EP '470 does not teach, disclose, suggest or provide any motivation either express or inherent relating to the Applicant's specifically recited inner and outer concentric walls or any analogous structure. This type of centralized, double wall construction is novel and inventive so as to make the transmission more simple, efficient, and cost-effective which is not obvious. Additionally, the cited reference also fails to disclose anything in regards to the use of the cover plate as a common element for supporting actuating elements for both the transmission gearing and the clutch in the manner and structure as recited in claims 10-24. Therefore, since at least these claimed elements of the present invention are not disclosed or taught in the applied reference or any of the attendant references, it is respectfully suggested that the § 103 obviousness rejection based on EP '470 be withdrawn.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised anticipation and obviousness rejections should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the EP '470 reference, the Applicant respectfully requests the

10/575,316

Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

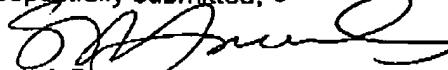
In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted, -



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